REMARKS

This paper is responsive to the Office Action mailed October 8, 2009. In the present Amendments to the claims, claim 1 has been amended to incorporate the elements of claim 3, and claim 3 is canceled. Thus, upon entry of this Amendment, claim 1will be pending.

Applicants respectfully submit that this amendment reduces issues for appeal and should therefore be entered.

Claim Rejections - 35 U.S.C. § 103

The Office Action rejects claims 1 and 3 under 35 U.S.C. § 103(a) as being unpatentable over Aga (U.S. 6,884,696) in view of Kikuchi (US 5,753,353) and Toshiro (JP 05-226620). In response, Applicants respectfully submit that it appears the Office has misinterpreted the disclosure of Aga, and submit that the rejection should be withdrawn when Aga is considered for what it actually discloses.

With respect to claim 3 (the elements of which have been incorporated into claim 1), the Action states that "Aga teaches a thickness of the SOI layer is less than 0.10 μm in column 5, line 65 and in column 10, line 18." (Office Action, page 4, lines 17-18.) Applicants note that Aga makes no reference to thickness of the SOI layer at column 5, line 65. And for ease of reference, Applicants present the passage from column 10, line 18:

> Thus, it can be seen that, according to the present invention, there can be
> produced, for example, a bonded SOI wherein surface roughness (RMS)
> measured for a 1 μm square and 10 μm square of the SOI layer surface is 0.15 nm
> or less for the both squares, σ of the thickness of the SOI layer is 1.5 nm or less,
> and moreover defect density is less than 10^3 number/cm^2.

As can be seen from this passage, there is no reference to a thickness of the SOI layer. The value of 0.15 nm refers to the surface roughness (RMS), i.e., root-mean-square surface roughness value; and 1.5 nm refers to the σ, or standard deviation, of the thickness of the SOI layer.

Applicants respectfully submit that the thickness of Aga's SOI layers can be ascertained from Tables 4 and 5. For example, Tables 4 and 5 show that Examples 1-4 of Aga have average

thicknesses of 0.1715, 0.1724, 0.1725, and 0.1715 μm, respectively. The standard deviations for these average thicknesses are 0.2, 1.0, 1.4, and 1.5 nm, respectively. Even considering the lowest disclosed average of 0.1715 μm, which happens to have the highest standard deviation of 1.5 nm, a thickness of less than 0.10 μm cannot result – it is mathematically impossible.

In view of the foregoing, Applicants respectfully submit that Aga fails to disclose this feature of the presently claimed invention. If the Office maintains this rejection, Applicants respectfully request that the Office specifically point to the relevant disclosure in Aga.

Applicants respectfully submit that the secondary references, Kikuchi and Toshiro, fail to remedy at least this deficiency of Aga. That is, neither Kikuchi nor Toshiro disclose an SOI layer thickness of less than 0.10 μm. Applicants further note that the Office Action fails to set forth any reasonable basis for concluding that an SOI layer thickness of less than 0.10 μm would be obvious from any of Aga, Kikuchi, or Toshiro.

In view of the foregoing remarks, Applicants respectfully submit that the Office has failed to establish a *prima facie* case of obviousness of the presently claimed invention. Applicants respectfully request withdrawal of the outstanding obviousness rejections.

CONCLUSION

For all the above reasons, it is respectfully submitted that all pending claims are patentable over the documents employed in the rejections of record. Applicants request reconsideration and withdrawal of the rejections of record. Allowance of the application with an early mailing date of the Notices of Allowance and Allowability is therefore respectfully requested.

If there should be any questions, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,
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